

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of)	WT Docket No. 05-235
)	
)	
Amendment of Part 97 of the Commission's Rules)	
To Implement WRC-03 Regulations Applicable to)	
Requirements for Operator Licensing in the)	
Amateur Radio Service)	

To: The Commission

COMMENTS OF SCOTT D. IRWIN, W8UFO

BACKGROUND

I am a visually impaired amateur radio operator who passed the Technician license exam in 1994 shortly after losing a close relative, moving to a new town, and starting a new second-shift job. At that time I entered the amateur radio service because I needed to meet people and end the huge feeling of isolation which was prevalent in my life at the time. I was active in packet radio, weather spotting, and VHF/UHF communications. I upgraded to General and Extra Class after nine years and currently enjoy FM, SSB, CW, and digital modes (including APRS, PSK31, and Echolink).

I am currently an Official Emergency Station with the Amateur Radio Emergency Service (ARES), am President of a local amateur radio club, a Volunteer Examiner, a Volunteer Instructor, and amateur radio class coordinator. I also continue to enhance my communication and technical skills by experimenting with new modes/techniques, having completed all three levels of the Amateur Radio Emergency Communications Course.

COMMENTS

As my comments in response to RM-10811 suggest, I **do not** support the elimination of telegraphy as a requirement for General and Extra class amateur radio licenses. Eliminating the telegraphy requirement will not achieve the three main objectives stated in the Docket and will weaken the underlying principles of the amateur service.

Section I, item 3 of the Docket states that eliminating the telegraphy examination would accomplish the three objectives below. I have included comments directly after each objective as to why I do not think the objective will be met by proceeding.

- *"...encourage individuals who are interested in communications technology, or who are able to contribute to the advancement of the radio art, to become amateur radio operators"*

Based on the information contained in the Docket, I believe that the FCC failed to show how people would be encouraged to enter the amateur radio service. The technician class license was created to encourage growth of the amateur radio service and does not require a telegraphy examination. While licensees in this class do not have access to frequencies below 30 MHz, they can still experiment with modulation modes and communication techniques on these frequencies, thus gaining both the technical and communication experience required to show competency at higher license classes and contributing to the radio art by way of experimentation.

- *"...eliminate a requirement that we believe is now unnecessary and that may discourage amateur service licensees from advancing their skills in the communications and technical phases of amateur radio"*

Stating that the requirement "is now unnecessary" and "may discourage" licensees from advancing their skills is short sighted and actually discourages people from improving or obtaining necessary skills.

While current digital modes such as PSK31 require minimal transmitter power, they rely on computers, interfaces, and alternating current in order to function. Telegraphy is the only modulation type that can be generated using minimal equipment and transmitting power in times of emergency and/or bad radio conditions. Imagine finding yourself in a situation where you have no radio, but access to electronic parts. In this case, you could use your technical knowledge to build a CW transmitter and fashion an antenna to call for assistance. In this type of situation you would be hard pressed to find the right parts to make a single-sideband transceiver, thus telegraphy is necessary.

Another instance where telegraphy is necessary relates to the solar sunspot cycle. At the low point of the cycle (which we are in now) propagation is not very good. A great example occurred just this weekend. On a four hour drive to visit friends, I was looking for stations to communicate with on the 20 and 40 meter bands. Voice/SSB communications were almost impossible due to the amount of "noise"; however telegraphy signals were abundant and clear. I was able to communicate via telegraphy but not SSB.

Just because a requirement may be preventing some licensees from advancing their skills does not mean the requirement should be arbitrarily dropped. As stated previously, I am visually impaired. The impairment has multiple side-effects, but the most prevalent ones are the ability to focus on one sport for any length of time, the inability to read small print (and some specific fonts) easily, and the inability to see things clearly that are at a distance. Based on those issues, one could say that the written exam itself "may discourage" me from advancing my skills.....but I did not. I sat for the exams, and not only did I pass the technician license exam, but I was able to obtain an Amateur Extra class license. Should the exam requirement be dropped because I may be discouraged from upgrading my skills or license? I think not.

To take this one step further, if requirements at home were arbitrarily dropped while I was a child, I wouldn't have a clean house or be where I am today. As a youngster, I stated that I could not meet the requirements to sweep the floor or wash dishes due to my visual impairment. My mother didn't waive that requirement, instead challenging me to find ways to accomplish it.....such as removing my socks and shoes so I could feel the dirt with my feet, or using my fingertips to touch the surface of a dish to feel any food residue. In high school and college, as well as in my present home/work life, I expect to follow the same rules that everyone else follows.....and I am a better person for it.

By requiring the telegraphy element, amateur licensees have basic communication tools along with something to strive for. The amateur radio service will be better communications resources.

- *"...promote more efficient use of the radio spectrum currently allocated to the amateur radio service."*

Like the first objective, the Docket does not provide sufficient information to argue this point. A CW signal occupies 80 Hz of spectrum, whereas a Single-Sideband signal occupies 2.3 kHz of spectrum. If one defines efficiency in terms of bandwidth used to send a message or communicate, telegraphy is one of the most efficient modulating techniques.

On May 13, 2005 the Tonight Show with Jay Leno held a "CW versus Text Messaging Challenge." The challenge put two amateur radio operators against two SMS cell phone users. Telegraphy delivered messages faster than SMS during the rehearsals and while on the air. It turns out that the amateurs were using 28-30 WPM, faster than the current SMS text record holder. The amateur operators send the full text, while the SMS pair used

abbreviations. This reinforces the usefulness of telegraphy and shows that radio spectrum and time are efficiently used.

According to the Docket, the amateur service is based on the following principles. I content that the underlying concepts of the amateur radio service will be weakened, and have included comments after each principle.

- *"Recognition and enhancement of the value of amateur service to the public as a voluntary noncommercial communications"*

The Docket *does not* include the most import part of Part 97.1(a), which states "...particularly with respect to providing emergency communications." The Tsunami of December 2004, Hurricane Charley, Hurricane Katrina, Hurricane Wilma, the California wildfires, and a host of other natural and man-made disasters underscore the value of the amateur radio service. After these storms there was no commercial electricity available, cellular and land-based telephones failed, public safety radio systems and satellite phones were overloaded. Amateur radio operators volunteered in large numbers to ensure that health-and-welfare messages were passed between authorities and agencies serving the victims, saving many lives. This could not be done efficiently without proficient knowledge of telegraphy.

- *"Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art"*

By eliminating telegraphy as a requirement, one of the most basic forms of radio communication would not be available to all amateurs who use frequencies below 30 MHz. While some say that 5 WPM demonstrates a rudimentary proficiency in telegraphy, the individual has an understanding of how to send and receive messages, thus providing a continuation of one's ability to contribute to the advancement of the radio art. Since they understand how a Morse signal is constructed, they can understand how modulation works and contribute experimentation or services to the service in that manner.

- *"Encouragement and improvement of the service through rules which provide for advancing skills in both the communication and technical phases of the radio art"*
- *"Expansion of the existing reservoir of trained operators, technicians, and electronic experts"*

While removing the telegraphy element *may* encourage licensees to upgrade their licenses, it *will not* advance skills or expand the reservoir of trained

operators. The above two principles are grouped together because these comments address both.

Since the number of license classes has been reduced and the requirements for these licenses eased, there is less time between license upgrades, thus individuals are unable to gain practical knowledge of the concepts which they learn while using privileges and learning new material.

During a recent conversation, a General Class licensee asked me how long the wire should be for a dipole antenna. They had no idea that there was a formula to compute the length, and even less of an idea as to how to make the antenna. These concepts are covered in both the Technician and General class License objectives. The licensees are focused on obtaining the licenses quickly instead of learning the concepts. Having telegraphy as a requirement would have provided the licensee with time to learn the basic concepts by using them while learning telegraphy.

One must remember that the technician class license was created during the last license restructuring in an effort to expand the number of amateurs. Since the addition of this license, there has been an explosion of new license grants based on the fact that many call areas are out of one-by-three call signs when the sequential system is used.

- *"Continuation and extension of the amateur's unique ability to enhance international goodwill"*

Telegraphy or Morse code is considered an international language. No matter what language one speaks, amateurs able to use telegraphy can communicate with people in any country. A message can be conveyed using standard abbreviations (prosigns and Q-Signals). In fact, the November 2005 edition of QST magazine (published by the American Radio Relay League) tells of how Barry Kutner (W2UP) traveled to Macedonia to compete in a high speed telegraphy competition after being urged by amateurs in Europe. Not only did he compete in the contest, he was able to meet these amateurs face-to-face and get to know them even better. There are countless articles, stories, and accounts in print and on the internet regarding how amateurs have made friends in other countries using telegraphy as the connection. Without telegraphy there is a high likelihood that these conversations would not have happened.

CONCLUSION

I urge the Commission to retain the telegraphy requirement. Failure to do so will weaken the basis of the amateur service by ensuring that operators are untrained

in the most basic form of radio communication, quell the spread of international goodwill through the elimination of a common means of communication, and will not guarantee that the three objectives set fourth in the Docket will be met.